PLEASE

INDUSTRY'S NEXT STEP IN ATOMIC ENERGY

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by T. Keith Glennan
President of Case Institute of Technology; Cleveland, Ohio
Former Member - U.S. Atomic Energy Commission

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It is a genuine pleasure for me to be here tonight, among so many old friends, and to talk to you about atomic energy.

This occasion will always be a memorable one for me, for it marks my first public appearance as an ex-United States Atomic Energy Commissioner.

It is perhaps because of my connection with the academic world that I am inclined to look upon this event as a kind of commencement exercise, and this address as my valedictory insofar as my service on the Atomic Energy Commission is concerned.

In any case, I believe it presents an unusually appropriate opportunity for me to look backward at some of the lessons I have learned during my two-year course in atomic energy administration - and looking forward - to suggest some of the ways in which these lessons might be applied by industry to advance the cause of peaceful atomic energy development. Before I finish tonight I hope to have developed one such suggestion in brief outline form.

ame to the Atomic Energy Commission in October 1950, and I shall be the first to admit that I did not bring with me any great familiarity with the nature of the program or the scientific principles upon which it is ba ed. Atomic energy was new to me, and I was, frankly, in the position of the old dog who had to learn some new tricks.

I did not, however, come empty-handed.

Among the things I brought with me -- in addition, of course, to my desire to do what I could for the national defense effort -- was a strong belief in the essential rightness of the American system of free competitive enterprise, and a strong conviction that it could be made to work in the development of atomic energy just as effectively as it has worked in all the other industries which have helped to make the United States the great free nation it is today.

I brought also an awareness of the apparent anamoly in the atomic energy law of this country, which on the one hand says that atomic energy should be used to strengthen free competition in private enterprise, and on the other grants to the government a 100-percent monopoly.

I brought also an ingrained suspicion of the motives, subconscious or otherwise, of a government agency that possesses the powers and prerogatives enjoyed by the Atomic Energy Commission -- particularly when these powers are derived from the right to own and manage -- in nearly complete secrecy -- a very large and promising new industry.

And I brought a strong desire to do what I could, while I served on the Commission, to make room for and to encourage the legitimate participation of industry in the national atomic energy program in something other than the role of a contractor performing an assigned task.

It would of course be very neat and effective to say that "I came, I saw, and I conquered." But this would not only be glib, it would also be untrue and grossly unfair to the Commission.

What actually happened was the education of Keith Glennan. I like to think that this was not entirely unilateral, but whether it was or not, I do know that I learned a great deal, and that I have had an immensely valuable and stimulating experience that I wish all of you could have shared.

When I arrived at the Commission in the Fall of 1950, I found -- not a group of bureaucratic ogres secretly plotting the erection of a permanent socialistic empire -- but rather a group of able, sincere, earnest, patriotic and hard-working men doing a job.

Evidence of the kind of job they are doing, and of the sense of urgency with which they approach it, can readily be seen in the weapons tests at Nevada and Eniwetok; in the new plants going up in Tennessee, Washington State, Kentucky, South Carolina and Ohio; and in the prototype power plant for a submarine in Idaho.

The Commission's job today is a research and development job, a construction job, and a production job. It is the kind of a job that involves running a billion-dollar-a-year operating industry, while, at the same time, trying to increase the capital investment of this industry more than six billion dollars in the space of the next few years. It is the kind of a job that one cannot do without tending strictly to business, and it doesn't leave very much time for philosophizing about the future.

But it would be entirely wrong to assume that the Commission has been so preoccupied with the problems of the moment that it has given no thought to the larger questions of the future. Actually, even in the midst of the hullabaloo of the construction and production programs, the Commissioners have found time to devote a good deal of attention to the future, and to such questions as the ultimate role of competitive enterprise in the atomic industry.

I am pleased to say that I had not been on the Commission very long before it became apparent to me that the views of the other Commissioners on this fundamental question of industrial participation were not basically different from my own. Naturally there were differences on such details as timing, methods, and so on, but essentially, I would say, there was agreement on the principle that free enterprise should absorb as much of the atomic energy industry as it is able and willing to absorb without damage to the national security or to the real public interest.

As evidence of this, I would point to the Commission's decision of about a year and a half ago which permitted eight private concerns, divided into four groups, to come into the program to study the feasibility of producing atomic power in privately-owned -- and, to some extent, at least -- privately-financed plants. Incidentally -- several additional companies are beginning to make similar studies this year.

The Commission had two possible decisions it could have made when it was approached by these groups: It could have said, "Go away, you bother me," or it could have said, "Come in and look around." It chose to say, "Come in and look around."

I sometimes think that the full significance of this important episode in the development of atomic energy has been missed. To my way of thinking, it produced two valuable lessons which industry would do very well to heed:

First, it demonstrated that the Commission's attitude toward private participation is basically sympathetic; and

Second, it showed that -- in this case, at least -- progress was made on industry's initiative, not the government's.

Actually, if you will think about it for a moment, I believe you will see why the government cannot be expected to carry the ball alone on this matter of industrial participation. The Commission's main job, as described in the atomic energy law and as dictated by the times, is to guarantee the common defense and security. It is a big job, and a time-consuming one, and if anyone thinks that the Commission can take time off from its defense work to look around for something to hand to industry on a solid plutonium platter, he is not being very realistic.

Let there be no mistake about it: Industry will get only those things that it can prove it really wants, it really can handle, and it really should have in the public interest.

As many of you doubtless know, this is a theme which I have followed with some variations in nearly every public appearance I made as a Commissioner. In essence, the message I have tried to get across is this: Industry must get into this atomic energy business with its own money and at its own risk, and, to do so, it must be willing to take some real chances, and it must knock persistently on the government's door with ideas, suggestions, and concrete, well-thought-out-proposals. In other words, I have been calling upon industry to exercise that talent which it is supposed to possess in such great abundance: initiative.

Now that I am in a position to look back at my earlier public statements with the perspective that time and experience bring, I must confess that there were some elements of naiveté in my approach. In effect, I invited industry to beat a path to the Commission's door. Industry did. The path is not as wide nor as well-trodden as I had hoped it would be, but it is there and being used just the same. Industry has come to the Commission's door bearing ideas, suggestions, proposals, and -- most of all -- questions. It is the questions that have been by far the most provocative and challenging contribution, and they have added up to a significance that I had originally not fully appreciated.

At first the questions were not too difficult to handle. Briefly, they went something like this:

What is the state of reactor development?

What does it cost to build a reactor?

What information do you have on new materials?

These questions were not too difficult to handle because most of them were technical questions, and they could be answered under the present law and under the Commission's present administrative policies by permitting cleared representatives from industry to come into the program and see for themselves what was going on. This was what we might call the "study phase", where the government was not required to give up any of its rights, and industry was not required to put up any money beyond that which was necessary to carry out its investigations.

But now the questions are getting harder, and I am afraid that, whereas my earlier exuberance may have helped to raise them, I know it has not been of much help in providing the answers. It is now obvious, I think, that it takes more than a knock on the Commission's door to get industrial participation off the ground; it takes a serious joint industry-government effort to resolve fairly and realistically the many problems with which both are faced.

To give you an idea of what these problems are, let me mention just a few of the many questions industry is asking today. They go something like this:

If we put up some of our own money, what rights can we expect in return?

Can we own atomic energy facilities?

Can we locate these facilities wherever economic factors dictate, or will there be other considerations?

Can we own patents on things we develop at our own expense?

Will we have access to the nuclear fuel we will need if we build a reactor for power?

If we produce plutonium, will the government buy it from us for military use, and, if so, what will the price be and for how long will it be guaranteed?

As you can see, the character of the questions being asked by industry has changed a good deal in the last year or two. Instead of technical questions, they are now primarily questions which any prudent investor might ask. Before they can be answered with any degree of realism or assurance, the government must take a position on some rather fundamental policy issues.

For example, the government must decide how far it can go along with industry without inhibiting its ability to protect the national security and the public's legitimate interest in such matters as health and safety and its own very large investment in the atomic energy program. As practical matters, the government must decide what it is going to do about such things as patents, materials allocations, private ownership, subsidies, and secrecy, and it must decide whether now is the time to change the atomic energy law, and, if so, how it should be changed.

Now, who is to settle these issues? Are they to be settled by a group of government experts meeting in secret, or are they to be settled in the traditional American Way -- out in the open, in a national forum where the views and interests of all sides can be fairly represented? Are the answers to come down from Olympus, or up from the market place where the people most affected conduct their business? It is worth remembering at this point that the present atomic energy act was debated publicly for many months before it was enacted.

Admittedly, the need for answers to these many questions is urgent. But I do not believe that the urgency is so great that the answers should be arrived at by fiat. Answers of this sort, I feel, would not only be unrealistic, they would also tend to be weighted on the side of those who have had a long-standing interest in the course of atomic energy development, and who possess, as of the present, the machinery for bringing their points of view to the attention of the Atomic Energy Commission.

This is not a criticism of the Commission; it is simply a recognition of the fact that the Commission must make its decisions on the basis of the information it has before it. And if it does not have all the information and advice it needs, it cannot very well make the wisest possible decisions. And, - I might add - neither can the Congress.

So let us look for a moment at those who have a real and obvious interest in the course of atomic energy development, and at the machinery through which these interests are represented.

First and foremost, of course, there is the Department of Defense. The military services rely upon the products of the atomic energy program to a very large extent in discharging their responsibility to protect the national security, and they have a need -- not only for bombs and other kinds of atomic weapons -- but also for atomic reactors for the propulsion of submarines, aircraft and surface vessels. As guardian of the national security, therefore, the Department of Defense obviously has a real and legitimate interest in the Atomic Energy Commission's work.

Look for a moment at the machinery through which this interest manifests itself. To say that it is ample would be an understatement. Not only does the Department of Defense have direct access to the President, from whom the Atomic Energy Commission takes its orders, it also has a very close working relationship with the Commission itself. For one thing, there is a Military Liaison Committee provided for by law, its Chairman appointed by the President and its members appointed by the military services. This Committee meets regularly with the Commission, it maintains offices in the Commission's own headquarters, and it employs a staff of more than fifty people to make sure that the military position is represented constantly before the Commission. Its members also make frequent appearances before the Congress.

Behind the Military Liaison Committee there are hundreds of other people in the Armed Forces Special Weapons Project and in the military services who devote their time exclusively to atomic energy. They have access to the secrets pertinent to their work, and they have a detailed knowledge of the Commission's program and how it does business. They are both in Washington and out in the field, and they turn up on scores of joint working committees.

I'm not saying that all of this is bad. Most of it is clearly necessary. All I'm saying is that it exists and that it more than adequately provides the machinery by which the military point of view can be represented in the field of atomic energy.

The second great body having an interest in the work of the Commission is the general public. The public has put up the money -- 12 billion dollars of it -- that the atomic energy program has received, and the public also has a clear interest in the products of the program: in the weapons that today protect its security, and in the good things that tomorrow will enhance its welfare and standard of living.

But how is the public interest protected? Again I would say that the machinery is at least adequate. When the Atomic Energy Commission was established, there was also established a Joint Congressional Committee on Atomic Energy whose sole purpose is to "watchdog" the Commission on behalf of the taxpayer and the general public. This 18-member Committee has access to all the secrets; it receives voluminous reports on all the Commission's activities; it holds frequent hearings, both off and on the record, and it maintains a staff of about twenty people to probe through the entire Commission operation.

Add to the work of this Committee the studies, investigations and hearings of the House and Senate Appropriations Committees and such other groups as the Small Business and Education and Labor Committees of Congress, and I believe you will begin to see that machinery exists for the protection of the public interest in atomic energy.

And who else has an interest? I would say that the scientists do. After all, it is upon their brilliant research that the whole program is based. Since the Commission itself conducts scientific research and supports it elsewhere, scientists also have a direct interest in the day-to-day work of the Commission. They have an interest, and they have the machinery through which this interest can be demonstrated. This machinery is the General Advisory Committee, a statutory Committee of elder statesmen from the fields of science and engineering appointed by the President to make recommendations to the Commission on the course of scientific development. This Committee has access to the secrets, it meets regularly with the Commission, and it maintains a small liaison office within the Commission's headquarters.

I think it is clear, then, that the military, the general public, and the scientists all have a direct interest in the atomic energy program and that they possess the means through which this interest can be fairly represented.

But are these the only groups that have a major interest in the course of atomic energy development? I think it is obvious that they are not. Industry built the atomic energy program; industry carries on nearly all of the work today under government contract, and industry stands ready to utilize the peaceful results of atomic research in its' own operations and for the benefit of society. I think it is entirely fair to say that no-one has a greater interest in atomic energy than industry. It might also be said that, because of secrecy restrictions and compartmentalization, no one has an interest that is less clearly defined than that of industry.

Now let's look at how this industrial interest is articulated. For the first time we encounter a void. There is no liaison committee, no statutory advisory committee, and no machinery through which the interest of industry as a group can be brought to the attention of the Commission. It is not a complete void, of course. There have been temporary advisory committees, named by the Commission itself, and serving at the pleasure of the Commission and under terms of reference provided by the Commission. There is also a very close working relationship between the Commission and its individual contractors. But the voices the Commission hears from industry are individual voices, many times divided, and many times raised in ignorance of the latest developments and of the Commission's total range of activity. They are not the kind of voices that can have much of an impact because they are not the kind of voices that speak from an informed point of view.

I think I am reporting accurately when I say that recently the Commission has become increasingly aware of the fact that there is no single, unified, representative and continuous voice from industry to balance the other voices which are beamed so consistently in its ear. This state of affairs need not continue. But the corrective measures should come - not from governmental urging - but rather as a result of industries own initiative.

In the short time that has passed since I left the Commission, I have given a good deal of thought to this question of how industry might contribute to its' own understanding of the potentials in this field and provide, as well, informed counsel to the Commission and to the public. I have thought about it, and I have discussed it with a number of people in both industry and government whose opinions I have come to respect. Out of this activity there has been distilled a suggested program which I'd like to lay before this audience tonight.

Briefly, my proposal is this: that those industrial concerns, institutions and individuals, that are today actively engaged in atomic energy research, development and operations, form, - voluntarily and without governmental urging or subsidy, - a national association of atomic industries.

I would propose that this association be established in the District of Columbia and that it develop a close working relationship with the Atomic Energy Commission, the Joint Congressional Committee on Atomic Energy, and other appropriate agencies of the government.

I would propose that the broad aim and purpose of the association be to foster and encourage -- subject, of course, to the requirements of national security -- the development and utilization of the peaceful applications of atomic energy in accordance with the best traditions of the American system of free competitive enterprise.

And I would propose that the association seek official recognition to the extent that those of its officers and staff who have not already been investigated and cleared for access to information required in the peaceful development of atomic energy, be so investigated and cleared.

To me, it is quite obvious that such an association could serve, among others, the following useful purposes:

One, it could provide a forum in which the atomic energy industry could arrive at an informed and perhaps a common position on such matters of vital concern to it as the ownership of atomic energy facilities, rights to patents, licensing regulations, health and safety standards, secrecy policies, personnel clearance policies, and contract and tax procedures.

Two, It could provide a channel thru which industry's position on these matters could be brought to the attention of the Atomic Energy Commission, the Congress and the public at large.

And Three, It could provide a mechanism for the acquisition and dissemination throughout industry generally of information on such matters as laws and regulations, business opportunities and new technological developments.

In other words, such an association could serve as the national forum, the national spokesman and the national information clearing house of the atomic energy industry.

I realize fully that there are a great many problems involved in the establishment of any new association, society or institute such as this. I can see, for example, how the problem of membership is made more difficult by the fact that atomic energy is today controlled, and, to a large extent, owned by the government. Membership would have to be set up on such a basis as to avoid the appearance or the reality of its' becoming a "closed shop" type of association where only those on the inside might belong. I can see, too, how the problem of operating an association in the atomic energy field would be complicated by the fact that a large amount of the information with which it would deal is today marked secret. And here one would wish that provision might be made for those not now active in the field to gain information, but on a basis such that security would be maintained.

But I do not believe that these obstacles are insurmountable. In fact, I believe the advantages of such an association are so great and so obvious that the time and effort it would take to find solutions to the problems involved is a small investment indeed compared to the many benefits that would accrue to industry and to this country.

No matter how such an association would be set up -- assuming one is set up -- I would hope that the following types of industrial concerns, institutions and individuals would have an opportunity to participate in it and to have a voice in the management of its affairs:

1. Those engaged in the production of atomic energy source materials, such as uranium and thorium.

2. Those engaged in the production of fissionable materials.

3. Those engaged in the utilization of fissionable materials for such purposes as power production and weapons manufacture.

4. Those engaged in the production, distribution or large-scale utilization for industrial purposes of such products of atomic energy as radioisotopes.

5. Those engaged in the design or construction of facilities uniquely applicable to atomic energy use, such as nuclear reactors and chemical processing facilities.

6. Those engaged in the manufacture of materials and equipment primarily useful in atomic energy work, such as beryllium, zirconium, radiation detection instruments and particle accelerators.

7. Those engaged, with either public funds or their own private funds, in studies and in research and development projects related directly to the industrial application of atomic energy.

and 8. Those other individuals in industry who, for one reason or another, are cleared for access to secret information.

In other words, if such an association were to be established, I would hope that all those with a real stake and a real interest in the industrial future of atomic energy might be permitted to participate in an active and responsible way.

I would hope also, that the non-secret informational benefits that would accrue from membership would never be denied to those who are not today actively engaged in atomic energy work. Since one of the principal purposes of such an association would obviously be to broaden the industrial base of atomic energy, it would be less than intelligent, in my view, to restrict these informational benefits to those who are already in the tent.

I can see, therefore, where it would be highly desirable to include in the association a class of membership which would not necessarily carry with it all the privileges of regular membership, but which would permit full participation in all non-secret symposia meetings, discussions and informational services. Such a class of membership would, in my opinion, be extremely useful to those companies, institutions and individuals who today have no place in the atomic energy picture, but who are sincerely interested in becoming acquainted with it in the hope of future participation.

In the main, such an association could and should provide a forum in which industry might develop its best thinking in the interest of the advancement of the peacetime uses of atomic energy; a forum in which industry might develop an informed voice to be heard at governmental levels as new atomic energy policy is hammered out; a forum, not to serve the narrow interests of a few, but to stimulate the industrial development of atomic energy for the good of all.

And that is not all that I would hope such an association would accomplish. I would hope also that it would make a real effort to help industry to recognize and understand its own very heavy responsibilities in the atomic field, so that it might prepare itself to assume them -- not only in its own interest, but in the public interest as well.

To my mind, there is no question but that the enlightened self interest of competitive enterprise in the course of atomic energy development is also the public interest, and I don't think I am alone in this belief. For evidence of this, I need only point to the atomic energy law of this country, which declares that one of the principal objectives of the atomic energy program is the stimulation of free competition in private enterprise.

I know there are those who may suggest that many of the same objectives of an association of this nature could be achieved just as well if the Atomic Energy Commission would only appoint a permanent industrial advisory committee. With this I cannot agree. And in saying this I am mindful of the thoughtful efforts of Jim Parker's Advisory Committee three years ago and of Phil Sporn's Committee more recently. Not only would such an advisory body be poorly equipped to perform the same kind of information job for industry, it would also, I strongly believe, find itself rather severely inhibited in its efforts to represent industry's point of view to the Commission and to the public. In essence, such a committee would be a captive, or "kept" committee, selected by the Commission and serving at its pleasure. Under these conditions, it would be very difficult, at best, for it to hold permanently the confidence of either industry or government.

What is needed here, instead, is something that comes up from industry, not down from the government -- something that is based upon and can effectively demonstrate the serious interest and enthusiasm that industry has in and for atomic energy. This is the sort of job that can be done for industry only by industry itself.

I have heard a great deal during recent months about what industry thinks government should do in atomic energy. Industry, however, has people with ideas, people with technical skills, people with legal knowledge, people with executive ability, people who can be articulate, and people with brains. It is high time that industry began to put some of these people to work -- and to begin to do for itself what it has too long been asking the government to do.

Let me emphasize one thing -- there is a vacuum building up in atomic energy policy. It is a vacuum that is being created by the technological advancements that current policy will no longer fit. This technical progress is leaving a vacuum that is going to be filled one way or another, and if it is not filled by industry on its own initiative, it is going to be filled in some other way.

In my opinion, the next session of congress will find itself debating changes in the Atomic Energy Act. Security standards, matters relating to patents and ownership of facilities now prohibited under the law are probable subjects for such debate. The entire development of this field to date of necessity has been government controlled and publicly financed and it is necessary, in presenting a case for industrial participation on a broader scale, that industry recognize that the tremendous volume of information now held in this field has been acquired almost wholly at public expense. The Commission must keep this fact constantly in mind and must develop a policy that protects the public interest. It is not a foregone conclusion, however, that this important consideration makes necessary the further development of the field by a government agency.

I have been out of the government for such a short time that I still find it hard to get used to the idea that I am once again a Private Citizen. But as a Private Citizen, newly-returned to the free competitive enterprise fold, let me address, in closing, this one final message to the atomic energy industry:

"In this thing we have that is called atomic energy, there is untold promise for the future -- in power, in propulsion, and in the utilization of nuclear radiation in a thousand ways not yet even dreamed of.

"Let's make our play, put in some chips and hasten the realization of some of this promise. Let's bring atomic energy out into the main stream of the economic life of America. Let's bring it out where the initiative and varied talents of the competitive enterprise system can be brought to bear upon the problems of atomic energy development -- for the good of industry, for the good of the country, and for the good of mankind."